



S/N 09/980,183

#9

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| Applicant: | HAMADA ET AL. | Examiner: | V. KOPPIKAR |
| Serial No.: | 09/980,183 | Group Art Unit: | 1775 |
| Filed: | APRIL 30, 2002 | Docket No.: | 10873.696USWO |
| Title: | MASTER DISC AND METHOD FOR MANUFACTURING MAGNETIC DISC USING THE SAME | | |

CERTIFICATE UNDER 37 CFR 1.10

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I hereby certify that this correspondence is being deposited with the United States Postal Service 'Express Mail Post Office To Addressee' service under 37 CFR 1.10 on the date indicated above and is addressed to: Mail Stop Non-Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

By:

Name: John Junkers

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MAY 27 2003

RESPONSE

GROUP 1700

Mail Stop Non-Fee Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450



Dear Sir:

This is in response to the Office Action mailed on February 26, 2003, in which claims 1, 3 and 5-10 were rejected and claims 2 and 4 were objected to. Reconsideration of the application is requested in view of the following remarks.

Claim 9 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicants respectfully traverse this rejection. The numerical range set forth in claim 8 is the range of the outer diameter of "an area on the principal plane where the land portion is formed radially." In contrast, claim 9 sets forth a numerical range for the outer diameter of the "master disc." The outer diameter of the master disc is not necessarily the same as the outer diameter of the area on the principle plane where the land portion is formed radially. Therefore, the numerical ranges set forth in claims 8 and 9 are definite in view of each other. Withdrawal of the rejection is respectfully requested.

Claims 1, 3, 6 and 7 were rejected under 35 U.S.C. § 102(e) as being anticipated by Ishida, U.S. 6,347,016. Applicants respectfully traverse this rejection.

Ishida fails to disclose a master disc configured so that "a space surrounded by the surface of the magnetic disc and the concave portion is open to air at a peripheral end portion of the magnetic disc," as required by claim 1. Ishida discloses a master disc configuration in which a space surrounded by the surface of the magnetic disc and the concave portion is not open to air at a peripheral end portion of the magnetic disc (see Figures 16 and 20 of Ishida). Therefore, Ishida fails to disclose every limitation of claim 1, and the claims that depend from it.

Claim 10 was rejected under 35 U.S.C. § 102(e) as being anticipated by Ishida. Applicants respectfully traverse this rejection. As discussed above, Ishida fails to disclose every limitation of claim 1. Therefore, claim 10 is allowable for at least the reason it is dependent upon an allowable base claim. Applicants do not concede the correctness of this rejection.

Claims 1, 3 and 5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 11-273069 in view of JP 11-025455. Applicants respectfully traverse this rejection.

The master discs disclosed by the JP '455 and JP '069 references fail to disclose or suggest a space in a concave portion that is open to air at a peripheral end portion of the disc, as required by claim 1. The JP '455 shows in Figures 2 and 4 and further describes in paragraphs [0026] and [0031], a configuration in which a slave drive disc and a master disc are stacked in close contact with each other, and a space between a concave portion of the disc and a surface of the slave disc is not open to air at a peripheral end portion thereof.

The JP '069 reference fails to disclose a master disc being "provided on one peripheral plane with a radial land portion where the array of the ferromagnetic film is formed in a concave portion against the land portion," as required by claim 1. The JP '069 reference discloses in Figures 4 and 9 that regions 91 are not formed on a land form, but are merely provided with fine projections and recesses by forming an array of ferromagnetic material thin films. This configuration is clearly described in paragraph [0026] of the JP '069 reference. Paragraph [0026] discloses that in Figure 5, hatching indicates projections and the surfaces of the projections are made of a ferromagnetic material such as Co.

Thus, the JP '069 reference fails to disclose or suggest a "radial land portion" or a "concave portion" that is separate from the ferromagnetic material thin film, and does not disclose that a "space surrounded by the surface of the magnetic disc and the concave portion of

the magnetic disc is open to air at a peripheral end portion of the magnetic disc," as required by claim 1. Therefore, JP '069 and JP '455 fail to disclose or suggest every limitation of claim 1, and the claims that depend from it.

Applicants have enclosed a verified English translation of paragraphs [0026] and [0039] of the JP '069 reference (which refer to Figures 4, 5 and 9 of that reference) to help clarify the disclosure of the JP '069 reference.

Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over JP '069 in view of JP '455. Applicants respectfully traverse this rejection. As discussed above, JP '069 and JP '455 fail to disclose or suggest every limitation of claim 1. Therefore, claim 10 is allowable for at least the reason it is dependent upon an allowable base claim. Applicants do not concede the correctness of this rejection.


Claim 8 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Ishida and further in view of Ikemoto, U.S. 5,800,253. As discussed above, Ishida fails to disclose every limitation of claim 1. Ikemoto fails to remedy the deficiencies of Ishida as it relates to claim 1. Therefore, claim 8 is allowable for at least the reason it is dependent upon an allowable base claim. Applicants do not concede the correctness of this rejection.

In view of the above, Applicants request reconsideration of the application in the form of a Notice of Allowance.

Respectfully submitted,

MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
(612) 332-5300

Date: May 20, 2003


Curtis B. Hamre
Reg. No. 29,165
CBH:JNR:PSTkaw:ae

Verification of Translation

U.S. Patent Application Serial No. 09/980183

**Title of the Invention: MASTER DISC AND METHOD FOR
MANUFACTURING MAGNETIC DISC USING THE
SAME**

**I, Harumi Sasaki, whose full post office address is IKEUCHI-SATO
& PARTNER PATENT ATTORNEYS, OAP TOWER 26F, 8-30
TENMABASHI, 1-CHOME, KITA-KU, OSAKA-SHI, OSAKA 530-6026,
JAPAN, am the translator of the documents attached and I state that the
following is true translations to the best of my knowledge and belief of a
part of JP11-273069A (Date of Application: March 23, 1988).**

At Osaka, Japan

DATED this 14/5/2003 (Day/Month/Year)

Signature of the translator


Harumi SASAKI

Partial Translation of
JP 11(1999)-273069 A

Publication Date : October 8, 1999
Application No. : 10(1998)-74670
Application Date : March 23, 1998
Applicant : MATSUSHITA ELECTRIC INDUSTRIES, CO., LTD.
[Translation of address omitted]

Title of the Invention : MASTER INFORMATION MAGNETIC RECORDING
DEVICE

Translation of Paragraphs [0026] and [0039]

[0026] As shown in FIG. 4, regions 41 are arranged at predetermined angular intervals on a surface of a master information carrier 62. In each of the regions 41, fine recesses and projections corresponding to a preformat information signal are formed. FIG. 5 is an enlarged view of a region A as a part of the region 41 shown in FIG. 4. As shown in FIG. 5, patterns of recesses and projections that correspond to a tracking servo signal, an address information signal, and a reproduction clock signal, respectively, are arrayed successively in a track circumferential direction and along a tracking scanning course of a magnetic head of a magnetic recording/reproducing device. It should be noted that in FIG. 5, hatching indicates the projections, and surface portions of the projections are made of a ferromagnetic material such as Co.

[0039] As shown in FIG. 9, regions 91 are arranged at predetermined angular intervals on a surface of a master information carrier 102. In each of the regions 91, fine recesses and projections corresponding to a preformat information signal are formed. A specific example of patterns of recesses and projections formed in the region 91 is identical to that of Embodiment 1 shown in FIG. 5. Such patterns of recesses and projections are formed by, as described in the description of Embodiment 1, forming a ferromagnetic thin film made of Co or the like by sputtering on a surface of a glass substrate having excellent smoothness and flatness, then, exposing and developing a resist film by a lithographic technique using a laser beam or an electron beam, such as photolithography, and thereafter, carrying out dry-etching or the like.